



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,467	07/03/2003	David Myr	MAK-105US	4935

7590 11/17/2006
Lawrence E. Ashery
RatnerPrestia
One Westlakes (Berwny), Suite 301
P.O. Box 980
Valley Forge, PA 19482

EXAMINER

OYEBISI, OJO O

ART UNIT PAPER NUMBER

3692

DATE MAILED: 11/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/613,467

Applicant(s)

MYR, DAVID

Examiner

OJO O. OYEBISI

Art Unit

3692

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 6-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 6-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

In the amendment filed on 08/21/06, the following have occurred: claims 1, 3, 6, 7 have been amended, claims 2, 4, and 5 have been cancelled, and claims 8-16 are newly added. Claims 1, 3, 6-16 are pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 6-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Kane (US PAT 6,317,728).

Re claims 1, 3. Kane discloses a multi channel Machine Learning trading system comprised of a very large number of independent trading strategies (i.e., agents) for choosing a preferred trading strategy (i.e., buy and sell rule, see abstract) according to user's subjective preferences and likings; a system that chooses one of the optimization techniques that will be used for real-time optimization and Machine Learning, individually and specifically optimizes parameters for each trading strategy in a real-time mode (see fig.3 element 5); a system that automatically sends different buy and sell orders for each different trading strategy (see abstract), according to self-optimized trading strategies and parameters (i.e., self-learning of buy and sell rules, see col.14 line 55-col.15 line 40, see col.16 line 63-col.17 line 3, see the abstract, also see col.12 lines 5-10) from trader's computer to computerized market exchanges (see

Art Unit: 3692

col.3 lines 20-60), comprising of the following modules: Data Feed module for receiving real-time and historical trading data on a variety of securities from a remote data server (i.e., data acquisition system, see the abstract, also see col.17 lines 3-12); trading software module as a means of building trading strategy that generates optimal and/or self-optimized Buy/Sell trading signals based on a number of optimized trading parameters (i.e., The computer arrangement is capable of evaluating the buy/sell data and issuing buy/sell orders in accordance with a plurality of buy/sell rules, i.e. "agents," stored in the system. A feedback arrangement monitors the success and failure of the respective buy/sell agents and assigns rating powers, i.e. weightings, to the buy/sell agents in order to implement a learning process for gradually improving the system performance based on past and continuously accumulating experience of the agents, see col.1 lines 6-15); optimization choice module (i.e., wealth wizard, see col.9 lines 62-66) as means of choosing from a list of optimization techniques, a multi channel Machine Learning Mechanism module that optimizes independently parameters for a very large number of different and independent trading strategies, takes those previously differently optimized parameters for each independent trading strategy and its trading results as an input for building new Buy/Sell signals independently for each strategy, based on a new and updated trading results, trading data and trading parameters received for each strategy and its parameters (i.e., During replays (training runs against historical data), a sequence of days is run many times. If the profit is improved upon during a run, the agent values that were in effect at the time of the run are kept, and the agent knowledge base is updated. During live runs with real trading

Art Unit: 3692

dollars, the system continually updates itself, thereby adapting to changing market conditions. This is highly unique among trading systems); the API/SDK-based multi channel automatic execution platform as a means of transferring self-optimized Buy/Sell orders simultaneously through a number of parallel programming connection channels from trader's computer to computerized exchanges, automatically and completely without human intervention (see col.11 lines 44-51, also see col.15 lines 5-38).

Re claim 6. Kane further discloses the system of claim 1, further comprising means of choosing if the order will be executed on a partial order execution cases or all-or-none execution basis individually for each different trading strategy; the means of handling partial order execution cases and readjusting the system when partial order execution has occurred (see col.12 lines 17-30, also see fig.11).

Re claim 7. Kane further discloses the system of claim 1, further comprising a hard-disk residing database and a computer storage means for storing and accounting trader's profit/loss information according to order execution details, independent of an additional bank or brokerage accounting system and in addition to bank's/brokerage's own profit/loss accounting system (i.e., (6) Record Trade Data and Account History: (185) When the system wakes up in the morning, it interrogates the brokerage account to obtain available capital, available margin, and other relevant information. The system then proceeds to trade against the account, and records the results of the trades including the reasons each position was taken and exited, and all relevant tax and economic data. All data is timestamped for later audit. For example the prevailing

Art Unit: 3692

price at the time of an order and the price the order is filled at are both recorded and timestamped, see col.11 lines11-20).

Re claim 8. Kane further discloses he system that is created and is working based on Application Programming Interface(API) or Software Development Kit (SDK), and which is a multi-channel automatic execution system that uses an appropriate API/SDK programming procedures, functions and DLLs to establish several parallel connection channels in order to connect user's trading system with a trading system of a bank or a brokerage, or with a trading exchange directly (i.e., trade execution, see col.7 lines 45-65); a system that uses an appropriate API/SDK programming procedures, functions and DLLs to send different and individual Buy/Sell trading orders from a user computer to the computerized exchanges, in a Multi-Channel mode for different and individual trading strategies optimized and self-optimized in a Multi-Channel mode, automatically and completely without human intervention, through connection channels established by the API/SDK (see fig.1 elements 18 and 28, also see col.5 lines 1-65).

Re claims 9-11. Kane further discloses the system, further comprising means of choosing an execution trading strategy for each of the trading channels in a Multi-System from an indefinite number of strategies (i.e., decision logic and executing device, see fig.1 elements 14 and 11, see col.3 lines 10-60), according to profit/loss, volatility, maximal drawdown or other strategy performance parameters (see col.10 lines 35-66).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kane in view of Freeny, Jr (US PAT: 6,594,643).

Re claim 12. Kane does not explicitly disclose the system, further comprising a multi-channel means of choosing different execution channels for different trading strategies, from a list of available order execution channels, i.e. means for choosing through which execution channel each order will be sent to a specific market for each specific trading strategy. For example, for NASDAQ market the user can choose from ECN, SOES or SelectNet channels. However, Freeny discloses a multi-channel means of choosing different execution channels for different trading strategies, from a list of available order execution channels, i.e. means for choosing through which execution channel each order will be

Art Unit: 3692

sent to a specific market for each specific trading strategy. For example, for NASDAQ market the user can choose from ECN, SOES or SelectNet channels (i.e., The individual selected market trader 28 receives the formatted trade request signal and in response thereto, the individual selected market trader 28 executes at least a portion of the trade. The individual selected market trader 28 is separate and apart from the individual trading computer 16. The individual selected market trader 28 can be anyone or anything that causes at least a portion of the trade to be consummated desirably on at least one trade exchange. The individual selected market trader 28 is selected by the individual from a plurality of potential traders, which may be Internet traders such as E-trade, Ameri-trade, Instinet, or Charles Schwab. The individual selected market trader 28 can be a company, an individual and/or a securities market, such as the New York Stock Exchange, the Pacific Stock Exchange, the Midwest Stock Exchange, the NASDAQ Stock Exchange, the over the counter market, the futures market, and/or the commodities market, see col.4 lines 10-33, also see col.6 lines 5-15). Thus it would have been obvious to one of ordinary skill in the art to combine the teachings of Kane and Freeny in order to minimize the costs of submitting the trade request signal (i.e., buying or selling investment items).

Art Unit: 3692

Re claims 13-15. Kane does not explicitly disclose the system, further comprising a multi-channel means of choosing different order quantity and different maximal allowable Bid/Ask spread for each trading strategy. However, Freeny discloses a multi-channel means of choosing different order quantity and different maximal allowable Bid/Ask spread for each trading strategy (i.e., The predetermined trading criteria include instructions, such as buy and sell orders, or algorithms capable of being used to analyze investment data to generate a trade request to buy and/or sell one or multiples of an investment item or products. For example, the predetermined trading criteria can be an instruction to buy and/or sell a stock at a predetermined price. In addition, multiple instructions (predetermined trading criteria) can be entered into the individual trading computer 16 to form a trading sequence relating to the same or different investment items. For example, a predetermined trading criterion to buy 100 shares of a stock at \$50.00 and another predetermined trading criterion to subsequently sell the 100 shares of the same stock at \$55.00 can be entered into the individual trading computer 16 before the predetermined trading criterion to buy the 100 shares of stock at \$50.00 has been executed. The predetermined trading criteria can then be sequentially executed if the stock's market price drops to \$50.00 and then rises from \$50.00 to \$55.00. The algorithm can be any algorithm and/or program capable of analyzing investment data to produce the trade request, such as a commercially available investment algorithm, see col.3 lines 22-44). Thus it would have been obvious to one of ordinary skill in the art to combine the teachings of Kane and Freeny in order to minimize the costs

Art Unit: 3692

of submitting the trade request signal (i.e., buying or selling investment items).

Re claim 16. Kane discloses the API/SDK-based system, further comprising the programming means of receiving order execution particulars through the API/SDK and storing it (i.e., see fig.1 elements 31, 27, 28, 29 and elements 17).

Response to Arguments

5. Applicant's arguments filed on 08/21/06 have been fully considered but they are not persuasive. The applicant argues in substance that Kane fails to disclose a plurality of independent trading strategies as claimed in claim 1 supra. The applicant's argument is predicated on the notion that Kane is a single mode, single strategy trading system. Contrary to applicant's assertion, Kane discloses a plurality of independent agents (i.e., The computer arrangement is capable of evaluating the buy/sell data and issuing buy/sell orders in accordance with a plurality of buy/sell rules, i.e. "agents," stored in the system. A feedback arrangement monitors the success and failure of the respective buy/sell agents and assigns rating powers, i.e. weightings, to the buy/sell agents in order to implement a learning process for gradually improving the system performance based on past and continuously accumulating experience of the agents, see col.1 lines 6-15). Thus the independent agents disclosed by Kane constitute independent trading strategies disclosed by the applicant.

Applicant's arguments with respect to the newly added claims 8-16 have been considered but are moot in view of the new ground(s) of rejection.

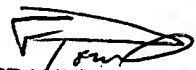
Art Unit: 3692

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OJO O. OYEBISI whose telephone number is (571) 272-8298. The examiner can normally be reached on 8:30A.M-5:30P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, HYUNG S. SOUGH can be reached on (571)272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


FRANTZY POINVIL
PRIMARY EXAMINER
Au 3 692